

DRAFT**CHAPTER 2. AUTHORITY AND LAW****CONTENTS**

	Section Page LAW-
1.0 OVERVIEW.....	1
2.0 FEDERAL LAW.....	1
2.1 Floodplain Management.....	1
2.1.1 National Flood Insurance Act, 1968.....	1
2.2 Water Quality.....	1
2.2.1 Clean Water Act, 1972.....	1
2.2.2 Water Quality Act, 1987.....	2
2.2.3 Springfield NPDES Phase I Storm Water Permit.....	2
2.2.4 U.S. Army Corps of Engineers Section 404 Permits.....	2
3.0 MISSOURI SURFACE WATER LAW.....	3
3.1 Clean Water Law.....	3
3.1.1 State Authority.....	3
3.1.2 Water Quality Standards.....	3
3.1.3 Section 303(d) List of Impaired Waters.....	4
3.1.4 Total Maximum Daily Load (TMDL).....	4
3.1.5 Section 401 Water Quality Certification.....	4
3.2 Common Law.....	4
3.2.1 Overview.....	4
3.2.2 Civil Law Rule.....	5
3.2.3 Common Enemy Rule.....	5
3.2.4 Modified Common Enemy Rule.....	5
3.2.5 Rule of Reasonable Use.....	5
3.2.2 Classification of Flow.....	6
3.2.7 Dam Safety.....	6
3.2.8 Professional Responsibility.....	6
4.0 SPRINGFIELD CITY CODE, ORDINANCES, AND POLICIES.....	6
4.1 Storm Water Quantity Control.....	7
4.1.1 Obstruction of Watercourses.....	7
4.1.2 Land Development Adjacent to and Draining to Sinkholes.....	7
4.1.3 Storm Water Detention.....	7
4.1.4 Acceptable Methods of Discharge.....	8
4.1.5 Requirements for Subdivisions.....	8
4.1.5 Requirements for Building Plans.....	9
4.2 Storm Water Quality Control.....	9
4.2.1 Discharge of Pollutants.....	9
4.2.2 Water Quality Protection.....	9
4.2.3 Regulation of Land Disturbance Activity.....	9
4.3 Regulatory Floodplain.....	10
4.3.1 FEMA Floodplain Regulation.....	10
4.3.2 Local Flood Area Regulation.....	10
5.0 REFERENCES.....	11

DRAFT

1.0 OVERVIEW

Storm water regulation within the City of Springfield (City) is subject to legal controls imposed by federal and state statutes and administrative regulations, City ordinances, and common law principles adopted by the courts in cases involving civil liability. Laws and principles apply to both water quantity (flooding) and water quality (pollution). Generally, federal laws regulate floodplain management and water quality. Missouri statutory and administrative law applies to water quality, and Missouri common law applies to many cases involving the management of storm water discharges. The City has adopted ordinances, found mostly in Chapter 96 of the City Code, that address both the water quantity and quality aspect of storm water management.

2.0 FEDERAL LAW

Federal storm water law regulates floodplain management and water quality. A brief summary of some of the federal acts that form the basis of federal law affecting storm water design criteria follows.

2.1 Floodplain Management

2.1.1 National Flood Insurance Act, 1968

This Act established the National Flood Insurance Program (NFIP). The NFIP is a federal program enabling all property owners in participating communities to purchase flood insurance in states and localities that adopt floodplain management regulations to reduce the potential for future damages from flooding. Springfield entered the NFIP in 1989, enacting the required community floodplain management regulations. (See Section 4.3 for a summary of City regulations related to floodplain management.) Contact the Federal Emergency Management Agency (FEMA) or visit their website (www.fema.gov) for more information regarding the NFIP. See Chapter 8, Open Channels, of this manual for information regarding design criteria along major waterways.

2.2 Water Quality

2.2.1 Clean Water Act, 1972

Known originally as the Federal Water Pollution Control Act, the Clean Water Act is the cornerstone legislation of surface water quality protection in the United States. The Clean Water Act established the framework for the U.S. Environmental Protection Agency (USEPA) to regulate discharges of pollutants into the waters of the U.S. through the National Pollutant Discharge Elimination System (NPDES) program. More information about the Clean Water Act and the NPDES program can be found at the USEPA website (www.epa.gov).

DRAFT**2.2.2 Water Quality Act, 1987**

The Water Quality Act amended the Clean Water Act to make the NPDES program applicable to non-point source discharges, including discharges of municipal storm water. The 1987 amendment requires municipalities to reduce pollutants in urban storm water to the Maximum Extent Practicable (MEP) through implementation of Best Management Practices (BMPs). The regulations established a two-phase approach for requiring municipalities to obtain storm water discharge permits. Municipalities with populations greater than 100,000 were designated “Phase I” cities with an earlier application requirement than smaller entities designated “Phase II.” The City was designated a Phase I entity, and Greene County was designated a Phase II entity. More information about the Water Quality Act and BMPs can be found at the USEPA website.

2.2.3 Springfield NPDES Phase I Storm Water Permit

In accordance with federal requirements, the City submitted an application for an NPDES Phase I Storm Water Permit in 1992 and 1993. The Missouri Department of Natural Resources (MDNR) issued the permit to Springfield in July 2002; it was the first NPDES Municipal Separate Storm Sewer System (MS4) permit issued in Missouri. Springfield’s NPDES Storm Water Discharge Permit can be viewed on the MDNR web site. Under the mandatory permit, the City is required to develop a comprehensive storm water management program to reduce the discharge of pollutants into area streams and water bodies.

An essential component of Springfield’s Storm Water Management Program is the implementation of BMPs in new developments and storm water system improvement projects. Representative storm water BMPs for use in meeting the requirements of Springfield’s Storm Water Management Program are discussed in Chapter 10, Water Quality, which contains details for the design of several common BMPs.

The NPDES permit requires the City to reduce discharges of pollutants from construction sites 1 acre or larger. The City requires that erosion and sediment control practices be implemented on all development projects, and developers must obtain a Land Disturbance Permit from the MDNR for all disturbances 1 acre or larger. See Section 4.2.3 of this chapter for more information on the City’s erosion and sediment control requirements.

2.2.4 U.S. Army Corps of Engineers Section 404 Permits

Under Section 404 of the Clean Water Act, a permit is required from the U.S. Army Corps of Engineers (USACE) for dredge and fill activities within the waters of the U.S., including wetlands. More information can be obtained by contacting the USACE (www.usace.army.mil). Approximately the northern third of Springfield draining north to the Sac River is in the USACE Kansas City District. Approximately the southern two-thirds of Springfield draining south is in the USACE Little Rock District. See Chapter 8,

DRAFT

Open Channels, for more information about when to contact the USACE regarding the possible need for a Section 404 permit and City requirements when a Section 404 permit must be obtained.

3.0 MISSOURI SURFACE WATER LAW

Missouri statutory and administrative regulations related to surface water are generally limited in application to water quality issues and are typically enacted as mandated by the federal Clean Water Act. Missouri Common Law has been developed by the state judiciary in court cases involving the civil liability of landowners in connection with the discharge or obstruction of surface water.

3.1 Clean Water Law**3.1.1 State Authority**

The Missouri Clean Water Law is contained in the Missouri Revised Statutes (RSMo) Chapter 644, Water Pollution. The law is an extension the federal Clean Water Act. Section 644.011 provides this statement of policy:

644.011. Whereas the pollution of the waters of this state constitutes a menace to public health and welfare, creates a public nuisance, is harmful to wildlife, fish and aquatic life and impairs domestic, agricultural, industrial, recreational and other legitimate uses of water, and whereas the problem of water pollution in this state is closely related to the problem of water pollution in adjoining states, and whereas this state must possess the authority required of states in the Federal Water Pollution Control Act as amended if it is to retain control of its water pollution control programs, it is hereby declared to be the public policy of this state to conserve the waters of the state and to protect, maintain, and improve the quality thereof for public water supplies and for domestic, agricultural, industrial, recreational and other legitimate beneficial uses and for the propagation of wildlife, fish and aquatic life; to provide that no waste be discharged into any waters of the state without first receiving the necessary treatment or other corrective action to protect the legitimate beneficial uses of such waters and meet the requirements of the Federal Water Pollution Control Act as amended; to provide for the prevention, abatement and control of new or existing water pollution; and to cooperate with other agencies of the state, agencies of other states, the federal government and any other persons in carrying out these objectives.

3.1.2 Water Quality Standards

The Missouri Water Quality Standards are contained in the Missouri Code of State Regulations, 10 CSR 20-7.031 Water Quality Standards, with this stated purpose:

DRAFT

This rule identifies beneficial uses of waters of the state, criteria to protect those uses and defines the antidegradation policy. It is developed in response to the Missouri Clean Water Law and the federal Clean Water Act, Section 303(1) and (2), which requires that state water quality standards be reviewed at least once every three years. These revisions are pursuant to the national goal of protection of fish, shellfish and wildlife and recreation in and on the water as outlined in Section 101(a) (2) of the Act.

3.1.3 Section 303(d) List of Impaired Waters

As required by the federal Clean Water Act, the MDNR maintains a listing of impaired waters and identifies the probable reason that each impaired water does not meet state water quality standards. Special standards to address impairments may apply in watersheds with waters on the 303(d) list.

3.1.4 Total Maximum Daily Load (TMDL)

As required by the federal Clean Water Act, a TMDL must be developed by the MDNR for all impaired waters on the 303(d) list. Several Springfield-area waters are included on the 303(d) list, which the MDNR updates biannually. See <http://www.dnr.mo.gov/env/wpp/waterquality/303d.htm> for the most current 303(d) list and the status of TMDLs associated with these waters. A TMDL quantifies the maximum amount of the pollutant(s) causing the impairment that a water body can receive before it becomes impaired. A TMDL develops a framework for the watershed to reduce the amount of pollutant(s) in the water so it can meet Missouri Water Quality Standards and be removed from the 303(d) list. Special standards to implement provisions of the TMDL may apply in the watershed of the impaired receiving water.

3.1.5 Section 401 Water Quality Certification

The federal Clean Water Act gives authority to each state to issue a Section 401 Water Quality Certification for any activity requiring a Section 404 permit (see Section 2.2.4 of this chapter). When a Section 404 permit is required, a Section 401 certification must also be obtained from the MDNR. More information can be obtained by contacting the MDNR or viewing their website (www.dnr.mo.gov). See Chapter 8, Open Channels, for more information about City requirements when a 401 Certification must be obtained.

3.2 Common Law**3.2.1 Overview**

Missouri case law governs civil liability of landowners in disputes involving the discharge or obstruction of surface water. The information provided in this section applies to the practice of discharging and

DRAFT

disposing of surface water, rather than the use of it. A brief summary of doctrines that have developed under Missouri Common Law is provided in Sections 3.2.2 – 3.2.8.

3.2.2 Civil Law Rule

Historically, this rule was founded on the natural flow of water. It gave upstream owners rights to discharge water to its natural course and made it unlawful for downstream owners to interrupt the natural flow of water.

3.2.3 Common Enemy Rule

Historically, this was the predominant rule followed by the courts. Its foundation was the assumption that surface water is the enemy of all. Every landowner possessed an unlimited and unrestricted legal right to control surface water without regard to the effects of such control on neighboring landowners.

3.2.4 Modified Common Enemy Rule

The Missouri courts adopted this rule in 1884. Under this doctrine, an upper landowner was required to exercise reasonable care in diverting surface water onto a lower landowner's property. However, the lower landowner was free to take unrestricted action to divert surface water coming on to his property from upstream, provided the action did not obstruct a natural watercourse.

3.2.5 Rule of Reasonable Use

In 1993, the Missouri Supreme Court abandoned the Modified Common Enemy Rule and adopted the Rule of Reasonable Use to determine civil liability in cases involving the diversion or obstruction of surface water, whether by an upper or lower landowner (*Heins Implement Co. v. Mo. Hwy. & Trans. Commission*, 859 S.W.2d 681 [Mo. 1993]). The court ruling stated that reasonableness of interference of flow of surface waters is a question of fact, to be determined in each case by weighing the gravity of harm to the plaintiff against the utility of the defendant's conduct.

In 1998, the Missouri legislature enacted a provision in Section 644.018 of the Missouri Revised Statutes specifying that in any case involving a flood prone area, if any defendant has obtained and fully complied with a permit from a local subdivision that has met the requirements of and is a participant in the NFIP, and the subdivision has jurisdiction over the area of dispute, then the proper permitting and compliance with all permit conditions shall be conclusive proof that the project meets any reasonable use test.

DRAFT**3.2.2 Classification of Flow**

The courts have made a distinction between cases involving a watercourse, as opposed to cases involving merely surface water. It is important to recognize and define this distinction. Missouri courts have established the following definitions:

Watercourse – *A stream usually flowing in a particular direction, though it need not flow continually. It must flow in a defined channel, having a bed, sides, or banks, and usually discharge itself into some other stream or body of water. It must be something more than a mere surface drainage over the entire face of a tract of land, occasioned by unusual freshets or other extraordinary causes. It does not include the water flowing in the hollows or ravines in land, which is the mere surface water from rain or melting snow, and is discharged through them from a higher to a lower level, but which at other times are destitute of water. Such hollows or ravines are not in a legal contemplation watercourses.*

Surface Water – *That form or class of water derived from falling rain or melting snow or which rises to the surface in springs and is diffused over the surface of the ground while it remains in that state or condition and has not entered a natural water course. In addition, floodwaters exceeding the capacity and flowing out a watercourse may be considered surface waters.*

When proposing to develop a site, special attention should be given to whether runoff occurs as a watercourse or as surface water at various locations on the site. See Chapter 4, Plan Submittal, for policies regarding accepting offsite runoff, conveying it across a site, and discharging it downstream.

3.2.7 Dam Safety

Chapter 236 of the Missouri Revised Statutes covers regulation of dams with a height exceeding 35 feet. Any proposal for a dam with a height of 35 feet or more must comply with all state statutes.

3.2.8 Professional Responsibility

Professional Engineers, Architects, and Land Surveyors have a responsibility to provide for public safety, health and welfare. Missouri law regulating the practice of Professional Engineering, Architecture and Land Surveying is found in Missouri Revised Statutes, Chapter 327.

4.0 SPRINGFIELD CITY CODE, ORDINANCES, AND POLICIES

Regulations regarding storm water runoff are found in several locations in the City Code. Chapter 96 contains storm water regulations related to watercourses, sinkholes, detention on new developments,

DRAFT

land disturbance activities, and discharges of pollutants. Regulations related to management of floodplains designated by FEMA are found in Chapter 8 Building Code and Chapter 36 Subdivision Regulations. Other provisions are also found in Chapter 36, as well as in the Zoning Ordinance. Policies and practices are also found in the Council Resolution No. 8648 Water Quality Protection Policy, the *Guidelines for Sediment and Erosion Control*, the *General Conditions and Technical Specifications for Public Improvements*, the *Standard Drawing Details for Public Improvements*, the *Site Plan Design Guide* and this manual. (See the Storm Water Services Division website to obtain these documents www.ci.springfield.mo.us/egov/publicworks/#stormwater.) More information regarding key ordinances relevant to water quality and quantity is found in Sections 4.1 through 4.3.

4.1 Storm Water Quantity Control**4.1.1 Obstruction of Watercourses**

City Code Chapter 96, Article I Control of Quantities, Division I Obstruction of Watercourses makes it unlawful and a public nuisance for any person to block, obstruct, destroy, cover, fill or alter in any way a watercourse or any part thereof so as to cause damage to the property of other persons from surface water. It gives certain authority to the City to cause such actions to be corrected.

4.1.2 Land Development Adjacent to and Draining to Sinkholes

City Code Chapter 96, Article I Control of Quantities, Division II Sinkhole Regulation prohibits the operation of motorized equipment in a sinkhole without a permit. The regulation specifies requirements for obtaining a permit to conduct such activity, requires the identification of sinkhole-related non-buildable areas, and specifies how such areas are to be determined. Certain storm water calculations must be submitted for approval for any proposed development that drains to a sinkhole, and certain plan notes are required to be placed on the plans for any development that contains a sinkhole. The regulation gives certain authority to the City to require any violations of the ordinance to be corrected. See Chapter 11, Sinkholes, for more information regarding storm water management and sinkholes.

4.1.3 Storm Water Detention

City Code Chapter 96, Article I Control of Quantities, Division III Detention and Retention of Storm Water establishes the requirement of storm water detention on any proposed development causing an increase in surface water runoff and provides general design criteria. Authority to inspect the detention facility is given to the City to ensure proper construction. The Article states that maintenance is to be the responsibility of the property owner and requires the recording of covenants and easements. Lack of maintenance is declared to be a nuisance, and certain authority is given to the City to require any violations to be corrected. See Chapter 9, Detention, for more information regarding storm water

DRAFT

detention design and Chapter 12, Easements and Maintenance, for more information regarding easement requirements.

City Code Chapter 96, Article I Control of Quantities, Division IV Regional Detention Basins establishes the conditions under which a regional detention facility or downstream improvements may be constructed in place of onsite detention. The method to establish the appropriate fee to the City as a payment in lieu of constructing onsite detention is provided. See Chapter 9, Detention, for more information regarding regional detention, downstream improvements, and applying for a payment in lieu of constructing onsite detention.

4.1.4 Acceptable Methods of Discharge

Consistent with Missouri Common Law, if a property has been modified to increase or change the amount, location, or character of discharge, the acceptable methods of discharge from that property are as follows:

1. To a public right-of-way;
2. To a recorded drainage easement, continuing to a public right-of-way or public drainage system;
or
3. To a certified natural watercourse as defined by Missouri Common Law (see Section 3.2.6 of this chapter).

The amount, location, or character of the discharge shall not be such that the capacity of the downstream system is exceeded or downstream flooding is otherwise caused.

When none of the three options listed above are readily available, the development must be modified so that the amount, location or character of discharge is not changed or a downstream easement must be obtained. For more information regarding acceptable methods of discharge, see Chapter 4, Plan Submittal.

4.1.5 Requirements for Subdivisions

City Code Chapter 36 Land Development Code, Article II Subdivision Regulations, Section 303 Improvements and Section 410 Improvements requires drainage improvements to be provided for all lots of a subdivision. It gives the Director of Public Works the authority to require construction or acceptable security of drainage and detention improvements in accordance with the Design Standards for Public Improvements prior to approval of the final plat. To prevent downstream flooding, the Director of Public Works may require construction of detention with no option for security.

DRAFT**4.1.5 Requirements for Building Plans**

City Code Chapter 36 Land Development Code, Article I Zoning Ordinance, Section 3-3000 Site Plan Review provides the requirements for site plans associated with building permits. Site plans must provide the existing and proposed topography, all existing and proposed drainage features, a soil erosion plan, and any other information necessary to show compliance with all City codes and ordinances.

4.2 Storm Water Quality Control**4.2.1 Discharge of Pollutants**

City Code Chapter 96, Article II Discharge of Pollutants establishes that it is unlawful to deposit or cause to be deposited any pollutants into waters of the City or State. Specific substances and activities considered pollutants are listed and permissible exemptions are given. Illicit connections to the storm water system are specifically prohibited. The City is authorized to conduct inspections and enforce the regulations, as well as require a property owner to develop a Storm Water Pollution Prevention Plan, report their own violations, and retain pertinent records. Violations are declared to be a public nuisance. See Chapter 10, Water Quality, for more information regarding design of storm water quality facilities.

4.2.2 Water Quality Protection

City Resolution 8648 adopted the Water Quality Protection Policy for the Fulbright Spring, Pierson Creek and all sinkhole watersheds. The resolution established a policy of implementing the recommendations of the 1995 Fulbright Spring Protection Study in each of these valuable watersheds that are community drinking water supply sources. The study recommended storm water BMPs be implemented as part of new developments to minimize the effect of urban runoff on receiving waters. The resolution provides options with design criteria for structural BMPs and site design techniques. See Chapter 10, Water Quality, for more information regarding design of storm water quality facilities

4.2.3 Regulation of Land Disturbance Activity

City Code Chapter 96, Article I Control of Quantities, Division V Land Development and Land Disturbance Activities provides the City authority to require erosion and sediment control measures on land disturbance activities and requires the developer to adhere to the Erosion and Sediment Control Guidelines published by the City. Allowing sediment to be deposited offsite is declared to be a nuisance, and the City is given authority to require any violations to be corrected.

DRAFT**4.3 Regulatory Floodplain****4.3.1 FEMA Floodplain Regulation**

City Code Chapter 36 Land Development Code, Article V Building Code provides for the adoption of floodplain maps approved by FEMA and establishes regulations regarding flood resistant construction for buildings in flood prone areas. Authority is given to the Director of Public Works to interpret FEMA floodplain maps regarding flood boundaries and flood elevations. Requirements related to building in floodways and a procedure for variances and exceptions are provided.

4.3.2 Local Flood Area Regulation

City Code Chapter 36 Land Development Code, Article II Subdivision Regulations, Section 409 requires the City to protect, through adequate drainage or designation of open space, all developments in FEMA flood zones or other local flood hazard areas as designated by the Director of Public Works. Studies and mapping for local flood hazard areas are on file with the Stormwater Division.

DRAFT**5.0 REFERENCES**

City of Springfield City Council. 1999. Resolution No. 8648, A Water Quality Protection Policy for the Fulbright Spring, Pierson Creek and Sinkhole Watersheds.

City of Springfield, Missouri Municipal Code (www.municode.com)

City of Springfield, Missouri, Department of Public Works Engineering Division. 2002. *General Conditions and Technical Specifications for Public Improvements*.

City of Springfield, Missouri, Department of Public Works Engineering Division. 2002. *Design Standards for Public Improvements*.

City of Springfield, Missouri, Department of Public Works Engineering Division. 2002. *Standard Drawing Details for Public Improvements*.

City of Springfield, Missouri, Department of Public Works, Storm Water Services Division Website (www.ci.springfield.mo.us/egov/publicworks/#stormwater)

City of Springfield, Missouri, Department of Public Works. 2002. *Site Plan Design Guide*.

City of Springfield, Missouri, Department of Public Works. 2000. *Erosion and Sediment Control Guidelines*.

Federal Emergency Management Agency Website (www.fema.gov)

Gaffney, R. and C. Hays. 2000. *A Summary of Missouri Water Laws, Missouri State Water Plan Series, Volume VII*, Rolla, Missouri: Missouri Department of Natural Resources.

Missouri Code of State Regulations (sos.mo.gov/adrules/csr/csr.asp)

Missouri Department of Natural Resources Website (www.dnr.mo.gov)

Missouri Revised Statues (moga.mo.gov/statutesearch/)

State of Missouri, Department of Natural Resources, Missouri Clean Water Commission. 2003. Missouri State Operating Permit # MO-0126322, City of Springfield.

U.S. Army Corps of Engineers Websites (St. Louis District: mvs.usace.army.mil/ and Kansas City District: nwk.usace.army.mil/)

U.S. Environmental Protection Agency Website (www.epa.gov)